

# Wisconsin Avenue Corridor Transportation Study

## Final Set of Public Meetings

**June 20, 2005** at St. Ann's Academy (Monsignor Awalt Room )  
~ *Focus on North of Rodman Street* ~

**June 21, 2005** at the Guy Mason Recreation Center  
~ *Focus on South of Rodman Street* ~

Presented by  
The Louis Berger Group, Inc.

# DDOT Guiding Principles

- Promote a comprehensive transportation approach that improves the quality of life for all residents that live along the corridor.
- Listen to residents through an open community participation process.
- Ensure that all suggestions promote transportation safety for all modes of travel.

## DDOT Guiding Principles (continued)

- Reduce commuter and cut-through traffic along local streets, as well as reduce traffic congestion.
- Improve non-automotive transportation access for pedestrians, bicyclists, and mass transit users.
- Better manage parking availability and utilization throughout study area.
- Improve visual aesthetics of rights-of-way throughout study area.

# Meeting Agenda

- Open Forum
- Brief Project Status
- Existing Condition Analysis
- Future Condition Analysis
- Improvement Recommendations
- Friendship Heights Addendum
- Discussion
- Next Steps

6:30-7:00PM

7:00-7:30PM

7:30-9:00PM

## WACTS Project Status (since last meeting)

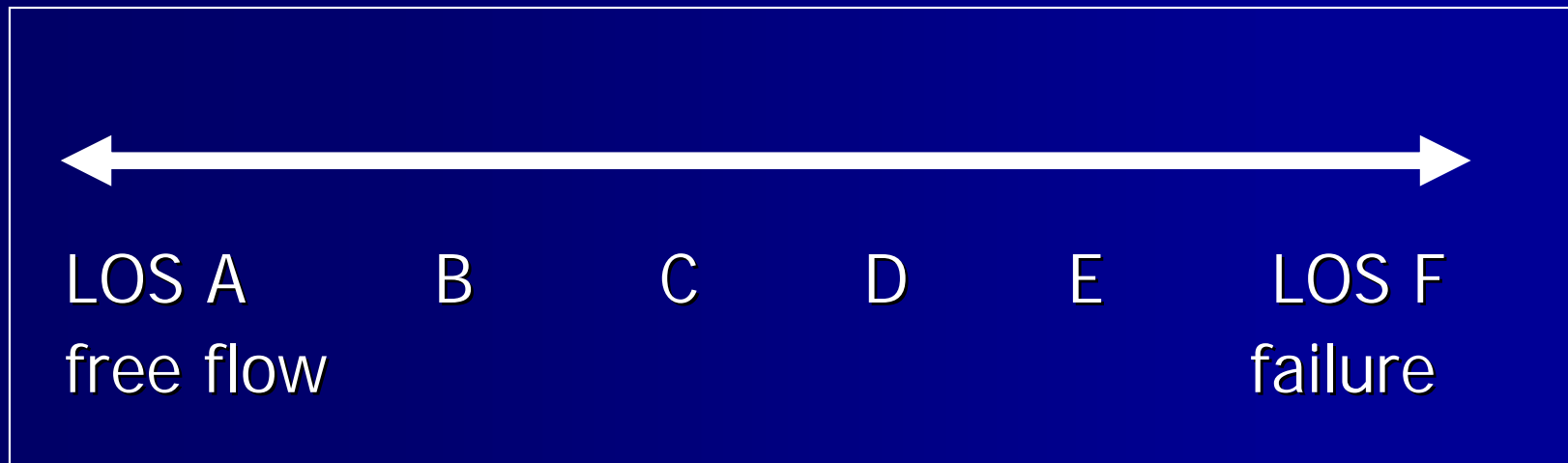
- Finalized existing traffic condition analysis
- Finalized development scenario definitions and estimated size of developments
- Conducted future traffic condition analysis
- Reviewed comments received from residents regarding potential improvements
- Developed short-term and long-term improvement recommendations
- Prepared draft report; submitted to DDOT and ANC Commissioners

# Friendship Heights Transportation Study Addendum Project Status

- Conducted River Road intersection analysis for the Friendship Heights Addendum; prepared improvement recommendations
- Conducted traffic impact analysis of additional developments on Friendship Heights Transportation Study intersections
- Prepared draft report

# Level of Service (LOS)

- Definition: an evaluation measure of overall intersection capacity compared to traffic volume
- Six different LOS



- Synchro and Highway Capacity Manual Software

# Existing Conditions – Wisconsin Avenue

## Arterial

- AM Peak Hour – C/D
- PM Peak Hour – C
- Saturday peak hour LOS – D

## Signalized Intersections

- Weekday signalized intersection level of service - LOS C or better except:
  - Upton Street (LOS D - AM Peak)
  - Cathedral Avenue (LOS D - AM Peak)
  - Garfield Street (LOS D - AM Peak)
- Saturday level of service LOS C or better except:
  - Fessenden Street (LOS D)
  - Albemarle Street (LOS E)
  - Calvert Street (LOS D)



# Scenario Description – Scenarios 1 and 2

## Scenario 1: Baseline

Wisconsin Avenue  
Corridor 2004  
(Base) Traffic  
Counts

Developments under  
construction or  
scheduled to begin  
construction (inside  
WACTS study area)

Friendship Heights Area  
Development under  
construction

- Chase Point
- Chevy Chase Center
- Hecht's

Natural Growth  
Factor based on  
MWCOG model  
(plus GEICO)

## Scenario 2: Medium

**Scenario 1** +

### Potential MORs:

- Outer Circle
- Post Office

### Potential PUDs:

- Marten's Volvo
- Whole Food block

+

### Outside of WACTS Area:

- Mazza Gallerie Parking Lot
- Lord & Taylor Parking Lot
- "Social" Safeway
- Boys and Girls Club
- Lord & Taylor
- WMATA
- Buick site

# Scenario Description – Scenarios 3 and 4

## Scenario 3: High

### Scenario 1 +

Maximum MORs <sup>1</sup>

Potential PUDs (same as in Scenario 2)

- “Social” Safeway (MOR)
- Boys and Girls Club (MOR)

+

#### Friendship Heights Addendum

The land parcels adjacent to Wisconsin Ave. will all be developed to max. PUD size, height and floor area ratio (FAR) for the zoning districts identified in the revised UWACS Plan.

- Mazza Gallerie Parking Lot
- Lord & Taylor
- Lord & Taylor Parking Lot
- WMATA
- Mazza Gallerie
- Buick site
- SW Corner 44<sup>th</sup> & Jenifer Sts.
- SW Corner Wisconsin Ave. & Jenifer St.
- NW Corner Wisconsin Ave. a& Harrison St.

<sup>1</sup> Development postulated for properties < 0.8 MOR and > 10 years since effective build date

## Scenario 4: Maximum

### Scenario 1 +

Maximum PUDs along entire Wisconsin Avenue corridor <sup>1</sup>

- “Social” Safeway (MOR)
- Boys and Girls Club (MOR)

+

#### Friendship Heights Addendum

The land parcels adjacent to Wisconsin Ave. will all be developed to max. PUD size, height and floor area ratio (FAR) for the zoning districts identified in the revised UWACS Plan. (same as Scenario 3)

<sup>1</sup> Development postulated for properties < 0.8 MOR and > 10 years old

# Estimated Development Scenario

## Total Square Footage

		Scenario 1	Scenario 2	Scenario 3	Scenario 4
<b>CURRENT CONSTRUCTION PROJECTS (SF.)</b>		1,823,723	1,823,723	1,823,723	1,823,723
<b>WACTS Area</b>	<i>Residential (dwelling unit)</i>	290	839	2,419	2,631
	<i>Commercial (SF)</i>	9,600	286,110	1,462,500	1,739,700
	<i>Office (SF)</i>	0	248,805	1,032,438	1,374,350
<b>WACTS Sub-total</b>		<b>299,600</b>	<b>1,373,915</b>	<b>4,913,938</b>	<b>5,747,050</b>
<b>Friendship Heights Addendum (sq.ft.)</b>		0	3,524,424	4,372,105	4,372,105
<b>South of WACTS Area (SF)</b>		0	617,000	617,000	617,000
<b>Scenario Total</b>		<b>2,123,323</b>	<b>7,339,062</b>	<b>11,726,766</b>	<b>12,557,878</b>

Note: Total was calculated assuming each dwelling unit at 1,000 sq.ft.

### Notes:

1. Figures in WACTS area for Scenarios 3 and 4 are corrected from the Draft Report.
2. Scenarios 3 and 4 do not include Fannie Mae development.

# Arterial Future Condition Analysis (2014) with and without Signal Optimization - Weekday

	<b>Northbound without Signal Improvement</b>	<b><i>Northbound with Signal Improvement</i></b>	<b>Southbound without Signal Improvement</b>	<b><i>Southbound with Signal Improvement</i></b>
<b>AM Peak - Weekday</b>				
Existing (2004)	D	C	C	C
Scenario 1	D	C	C	C
Scenario 2	D	C	D	D
Scenario 3 *	<b>E</b>	D	<b>E</b>	D
Scenario 4 *	<b>E</b>	D	<b>E</b>	<b>E</b>
<b>PM Peak - Weekday</b>				
Existing (2004)	C	C	C	C
Scenario 1	C	C	D	D
Scenario 2	D	D	<b>E</b>	<b>E</b>
Scenario 3 *	<b>E</b>	<b>E</b>	<b>F</b>	<b>F</b>
Scenario 4 *	<b>F</b>	<b>E</b>	<b>F</b>	<b>F</b>

\* Additional signal optimization may be feasible for Scenarios 3 and 4.

# Future Condition Analysis (2014) with and without Signal Optimization - Saturday

	<b>Northbound without Signal Improvement</b>	<b><i>Northbound with Signal Improvement</i></b>	<b>Southbound without Signal Improvement</b>	<b><i>Southbound with Signal Improvement</i></b>
<b>Saturdays</b>				
Existing (2004)	D	C	D	C
Scenario 1	E	C	E	C
Scenario 2	F	D	F	E
Scenario 3 *	F	F	F	F
Scenario 4 *	F	F	F	F

\* Additional signal optimization may be feasible for Scenarios 3 and 4.

- Handout - Intersection Future Year (2014) LOS

# Improvement Recommendations for WACTS

## Short-Term Improvements

# General Improvement Recommendations at Most Wisconsin Avenue Intersections

## Short-term Improvements (ST)

- Restripe most approaches at intersections
- Restripe or stripe pedestrian crosswalks
- Install mast arms where lacking
- Install more speed limit signs
- Replace faded signs
- Trim vegetation for better sight distance

## Long-term Improvements (LT)

- Reconstruct wheel chair ramps

# Optimize Signal Timing at Wisconsin Avenue Intersections (ST)

- Fessenden Street
- Brandywine Street
- Albemarle Street
- Tenley Circle North
- Upton Street
- Fannie Mae parking entrance
- Woodley Road
- Massachusetts Avenue
- Cathedral Avenue (also Cathedral Avenue and Massachusetts Avenue)
- Garfield Street
- Calvert Street
- At Whole Food entrance in Glover Park



# Provide Improved Lane Markings and Lane Use Signs (ST)

## Wisconsin Avenue Intersections

- Fessenden Street (west and east)
- Tenley Circle
- Van Ness Street (west)
- Upton Street (west)
- Newark Street (west)

\* ( ) indicates side of Wisconsin Avenue

## Non-Wisconsin Avenue Intersections

- Cathedral Avenue at Massachusetts Avenue (east)
- 40<sup>th</sup> Street north of Albemarle Street
- EB Albemarle Street between Fort Drive and Nebraska Avenue
- SB 34<sup>th</sup> Street at Cleveland Avenue

# Establish Parking Limits with "L" Striping at Wisconsin Avenue Approaches (ST)

- Fessenden Street (west)
- Ellicott Street (west)
- Davenport Street (east)
- Brandywine Street (west)
- Albemarle Street (west)
- Van Ness Street (west)
- Rodman Street (west)
- Porter Street (west)
- Macomb Street (west)

\* ( ) indicates side of Wisconsin Avenue

# Install Pedestrian Crossing Signs (ST)

- Wisconsin Avenue at Windom Place
- Wisconsin Avenue at Warren Street
- Wisconsin Avenue at Veazey Street
- 37<sup>th</sup> Street at school crossing

# Install Illuminated Turning Prohibition Signs at Wisconsin Avenue Intersections (ST)

- Albemarle Street
- Van Ness Street
- Massachusetts Avenue

# Repair Poor Pavement (ST)

## Wisconsin Avenue Intersections

- On Ellicott Street west of Wisconsin Avenue
- Tenley Circle (currently in progress)
- Wisconsin Avenue North of Van Ness Street
- On Upton Street east of Wisconsin Avenue
- NB Wisconsin Avenue just north of Rodman Street

## Non-Wisconsin Avenue Intersections

- Chesapeake Street east of River Road
- 37<sup>th</sup> Street north of Tunlaw Street

# Improvement Recommendations for WACTS

## Long-Term Improvements

# Install Semi-Actuated Signal System with Pedestrian Crossing Actuation (LT)

- Davenport Street at Wisconsin Avenue
- For the left-turn lanes at Brandywine Street at NB Wisconsin Avenue
- Edmunds Street at Wisconsin Avenue

# Reconstruct Curb-Line (LT)

## Wisconsin Avenue Intersections

- At 42<sup>nd</sup> Street and Emery Place
- At 41<sup>st</sup> Street and Wisconsin Avenue
- At River Road and Wisconsin Avenue
- At 39<sup>th</sup> Street and Wisconsin Avenue
- At Idaho Street/ Ordway Street/ Wisconsin Avenue

## Non-Wisconsin Avenue Intersections

- An island at Brandywine Street/ River Road/ 42<sup>nd</sup> Street



## Improve Curve Radius (LT)

- Southeast corner at Whole Food entrance in Tenleytown
- Southeast corner at Wisconsin Avenue at Van Ness Street
- Southeast corner at Wisconsin Avenue at Fannie Mae Parking entrance
- Southeast corner at Wisconsin Avenue at Calvert Street
- Northwest corner at Nebraska Avenue at Albemarle Street

# Specific Intersection Recommendations

- Handouts
- Draft Report
  - Executive Summary Pages ES12- ES14
  - Main Report Pages 88 through 128

# Parking Recommendations (LT)

- Consider modifying the current residential parking program to a finer zone level.
- Strengthen enforcement of the existing residential parking restrictions.
- Strengthen metered enforcement along Wisconsin Avenue and adjacent streets, especially in the Tenleytown area
- Potential parking elimination at critical intersections
- Require future developments to provide sufficient parking so as not to exacerbate existing parking problems in the Tenleytown and Glover Park areas.
- Make parking facility information more visible to users.

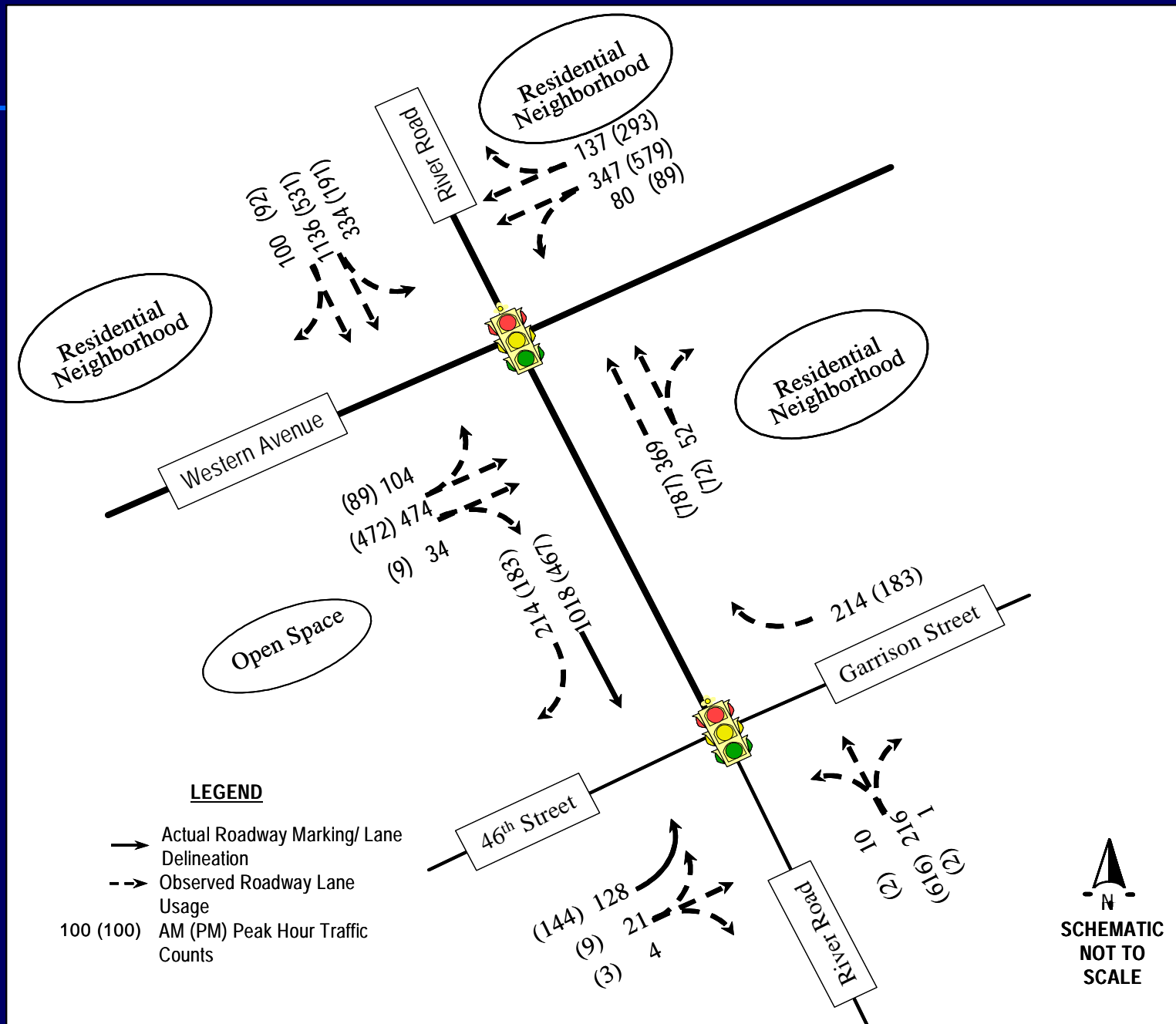
*The Mayor's Parking Taskforce recommendations further provide a sound basis for DDOT's future parking policy.*

# Friendship Heights Transportation Study Addendum (FHA)

# Friendship Heights Transportation Study Addendum Scope of Work

1. Assess conditions of River Road Intersections at Western Avenue and at Garrison Street/46<sup>th</sup> Street
2. Prepare short term and long term improvement recommendations at River Road intersections
3. Evaluate the following development traffic impact on Friendship Heights Transportation Study (FHTS) 12 intersections with FHTS improvements
  - Mazza Gallerie parking lot
  - Lord & Taylor parking lot
  - Lord & Taylor
  - WMATA and BUICK (adjusted the FHTS analysis with the latest data)

# River Road Intersections



# Queuing Observation

	River Road		Western Avenue	
	Northbound	Southbound	Eastbound	Westbound
<b>AM Peak Hour</b>				
Average Queue (# of vehicles)	13	26	28	46
Percent Clearance	85%	100%	57%	35%
<b>PM Peak Hour</b>				
Average Queue (# of vehicles)	9	26	20	34
Percent Clearance	100%	81%	80%	71%

# Existing Condition Analysis

## Existing Condition Analysis

ID #	Intersections	AM Peak	PM Peak
1	River Rd. @ Western Ave, N.W.	E (77 seconds)	E (59 seconds)
2	River Rd. @ Garrison St. & 46 <sup>th</sup> St. N.W.	D (38 seconds)	B (15 second)

## Future Condition Analysis

ID #	Intersections	AM Peak	PM Peak
1	River Rd. @ Western Ave, N.W.	F	F
2	River Rd. @ Garrison St. & 46 <sup>th</sup> St. N.W.	D	B



# Preliminary River Road at Garrison Street / 46<sup>th</sup> Street Recommendations

## Short-Term Improvements

- Replace faded “No Parking Anytime” sign on 46th Street.
- Restripe pavement markings.
- Realign signal heads to properly face Garrison Street and northbound River Road, as appropriate.
- Install optically programmed signal heads to limit visibility to the appropriate approaches.
- Install mast arm signals on the River Road approaches for improved visibility.
- Restripe lane use markings on northbound River Road and on westbound 46th Street.

# Preliminary River Road at Garrison Street / 46<sup>th</sup> Street Recommendations (continued)

## Short-Term Improvements (continued)

- Install graphical lane use signs on northbound River Road and on westbound 46th Street.
- On the River Road northbound approach, eliminate parking within 50 feet of the intersection.
- On the River Road northbound approach, restrict parking within 250 feet of the intersection during the PM peak hour (4:00 to 6:30 PM) to allow two-lane operation.
- Install "No Parking Any Time" signs on the northbound approach to Western Avenue between 46th Street and Western Avenue.

# Preliminary River Road at Garrison Street / 46<sup>th</sup> Street Recommendations (continued)

## Long-Term Improvements

- Widen southbound River Road to permit two lanes southbound through the intersection. Provide taper to one lane downstream of the intersection. Eliminate parking in the taper area.
- Change the lane use designation for the River Road southbound approach from one through lane and one right turn lane to one through lane and one through/right lane.

# Preliminary River Road at Western Avenue Intersection Recommendations

## Short-Term Improvements

- Revise signal phasing by eliminating the split phases for Western Avenue and replacing with dual advance left turn phasing and concurrent through movements.
- Remove/clear vegetation overgrowth or relocate signs for better visibility.
- Restripe pavement markings.
- Relocate the speed limit sign closer to the intersection.
- Relocate / increase the lane drop taper for westbound traffic farther west on Western Avenue.
- Install mast arm signals for improved visibility.
- Restripe pedestrian crosswalks.

# Preliminary River Road at Western Avenue Intersection Recommendations (continued)

## Long-Term Improvements

- Reconstruct wheel chair ramps to current ADA and DDOT standards.
- Eliminate parking on River Road between Garrison Street and Western Avenue.
- Widen Western Avenue 10 feet to the north to allow construction of left turn storage lanes for both the eastbound and westbound approaches
- Widen the southbound approach of River Road 5 feet to the east and west to allow construction of a left turn storage lanes on that approach.

# Need for Cooperation and Coordination

- Western Avenue at River Road intersection recommendations affect both DC and Maryland
- Implementing long-term improvements requires coordination with Maryland State Highway Administration, Maryland DOT, the Maryland-National Capital Park and Planning Commission, and other stakeholders

# Comparison of LOS for River Road Intersections with WACTS Scenarios

## AM Peak Hours

ID #	Intersections	Future LOS with Improvements (plus FHA developments)	Scenario 2	Scenario 3	Scenario 4
1	River Rd. @ Western Ave, N.W.	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>
2	River Rd. @ Garrison St. & 46 <sup>th</sup> St. N.W.	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>

## PM Peak Hours

ID #	Intersections	Future LOS with Improvements (plus FHA developments)	Scenario 2	Scenario 3	Scenario 4
1	River Rd. @ Western Ave, N.W.	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>
2	River Rd. @ Garrison St. & 46 <sup>th</sup> St. N.W.	<b>B</b>	<b>C</b>	<b>C</b>	<b>C</b>

# Traffic Impact of Additional Developments on FHTS Intersections

ID #	Intersections	FHTS Future Condition with FHTS Improvements		Future Condition with FHTS Improvements – Plus Additional Developments	
		AM Peak	PM Peak	AM Peak	PM Peak
1	Western Ave. @ 41 <sup>st</sup> St. NW	C	C	C	C
2	Western Ave. @ Military Rd. N.W.	B	B	B	B
3	Wisconsin Ave. @ Western Ave. N.W.	C	C	C	D
4	Western Ave. @44 <sup>th</sup> St. N.W.	A	A	A	A
5	Western Ave. @ Jenifer St. N.W.	C	C	C	E (D) <sup>2</sup>
6	Wisconsin Ave. @ Jenifer St. N.W.	B	C	C	E (D) <sup>2</sup>
7	Wisconsin Ave. @ Harrison St. N.W.	A	A	B	E (B) <sup>2</sup>
8	Wisconsin Ave. @ Garrison St. N.W. <sup>1</sup>	F	F	F	F
9	Wisconsin Ave. @ Fessenden St. N.W.	B	B	C	B
10	Military Rd. @ 43 <sup>rd</sup> St. N.W. <sup>1</sup>	C	C	C	D
11	Military Rd. @ 41 <sup>st</sup> St. N.W.	B	A	B	A
12	Military Rd. @ Reno Rd. N.W.	B	C	B	C

**Notes:**

1. These are unsignalized intersections. Levels of service at these intersections were measured based on the Highway Capacity Manual Unsignalized Intersection Capacity Analysis. Delay is for minor street approach only.

2. (D) indicates LOS with additional signal optimization.



# Future 2014 WACTS Scenario Traffic Impact on FHTS Intersections with Signal Timing Optimization - AM Peak Hour

ID #	Intersections	Future Condition with FHTS Improvements – Plus Additional Developments	Scenario 2	Scenario 3	Scenario 4
1	Western Ave. @ 41 <sup>st</sup> St. NW	C	C	C	C
2	Western Ave. @ Military Rd. N.W.	B	B	B	B
3	Wisconsin Ave. @ Western Ave. N.W.	C	<b>D</b> <sup>2</sup>	<b>D</b> <sup>2</sup>	<b>D</b> <sup>2</sup>
4	Western Ave. @44 <sup>th</sup> St. N.W.	A	A	A	A
5	Western Ave. @ Jenifer St. N.W.	C	C	C	C
6	Wisconsin Ave. @ Jenifer St. N.W.	C	C <sup>2</sup>	C <sup>2</sup>	<b>D</b> <sup>2</sup>
7	Wisconsin Ave. @ Harrison St. N.W.	B	<b>C</b>	<b>C</b>	<b>C</b>
8	Wisconsin Ave. @ Garrison St. N.W. <sup>1</sup>	F	F	F	F
9	Wisconsin Ave. @ Fessenden St. N.W.	C	<b>C</b> <sup>2</sup>	<b>C</b> <sup>2</sup>	<b>C</b> <sup>2</sup>
10	Military Rd. @ 43 <sup>rd</sup> St. N.W. <sup>1</sup>	C	C	C	C
11	Military Rd. @ 41 <sup>st</sup> St. N.W.	B	B	B	B
12	Military Rd. @ Reno Rd. N.W.	B	B	B	B

**Notes:**

1. These are unsignalized intersections. Levels of service at these intersections were measured based on the Highway Capacity Manual Unsignalized Intersection Capacity Analysis. Delay is for minor street approach only.

2. These are the intersections where additional signal timing optimization was performed.

# Future 2014 WACTS Scenario Traffic Impact on FHTS Intersections with Signal Timing Optimization - PM Peak Hour

ID #	Intersections	Future Condition with FHTS Improvements – Plus Additional Developments	Scenario 2	Scenario 3	Scenario 4
1	Western Ave. @ 41 <sup>st</sup> St. NW	C	C	C	C
2	Western Ave. @ Military Rd. N.W.	B	B	B	B
3	Wisconsin Ave. @ Western Ave. N.W.	D	D <sup>3</sup>	D <sup>3</sup>	<b>E</b> <sup>3</sup>
4	Western Ave. @ 44 <sup>th</sup> St. N.W.	A	A	A	A
5	Western Ave. @ Jenifer St. N.W.	E (D) <sup>2</sup>	D	D	D
6	Wisconsin Ave. @ Jenifer St. N.W. <sup>4</sup>	E (D) <sup>2</sup>	<b>E</b> <sup>3</sup>	<b>F</b> <sup>3</sup>	<b>F</b> <sup>3</sup>
7	Wisconsin Ave. @ Harrison St. N.W.	E (B) <sup>2</sup>	<b>C</b> <sup>3</sup>	<b>D</b> <sup>3</sup>	<b>D</b> <sup>3</sup>
8	Wisconsin Ave. @ Garrison St. N.W. <sup>1</sup>	F	F	F	F
9	Wisconsin Ave. @ Fessenden St. N.W.	B	<b>D</b>	<b>D</b>	<b>D</b> <sup>3</sup>
10	Military Rd. @ 43 <sup>rd</sup> St. N.W. <sup>1</sup>	D	D	D	D
11	Military Rd. @ 41 <sup>st</sup> St. N.W.	A	A	A	A
12	Military Rd. @ Reno Rd. N.W.	C	C	C	C

Notes:

1 These are unsignalized intersections. Levels of service at these intersections were measured based on the Highway Capacity Manual Unsignalized Intersection Capacity Analysis. Delay is for minor street approach only.

2 These are the intersections where additional signal timing optimization was performed. – See Exhibit 3-1.

3. Additional signal optimization was undertaken at intersections where LOS changed.

4. With additional improvements as described above, LOS on Wisconsin Avenue/Jenifer Street can improve to LOS D for Scenario 2.

# Additional Long-Term Mitigation Measures Recommendations

- Wisconsin Ave. @ Western Ave. N.W. – Add a right turn lane for SB traffic.
- Wisconsin Ave. @ Jenifer St. N.W. – Add a left turn lane for NB traffic.
- Remove parking on the Jenifer St. EB approach to provide three approach lanes.
- Wisconsin Ave. @ Garrison St. N.W. – Eliminate left turns during peak hours
- Military Rd. @ 43rd St. N.W. - Eliminate left turns during peak hours

# Next Steps

- Presentation materials, handouts, and Draft Report available at DDOT website
- WACTS Appendices Available by June 27, 2005
- Draft Report and appendices also available at Chevy Chase and Cleveland Park libraries
- Comments to DDOT via email by August 1, 2005 (revised)  
[John.Bullock@dc.gov](mailto:John.Bullock@dc.gov)
- FHA Draft Report Available on DDOT website and at Chevy Chase library by June 22, 2005